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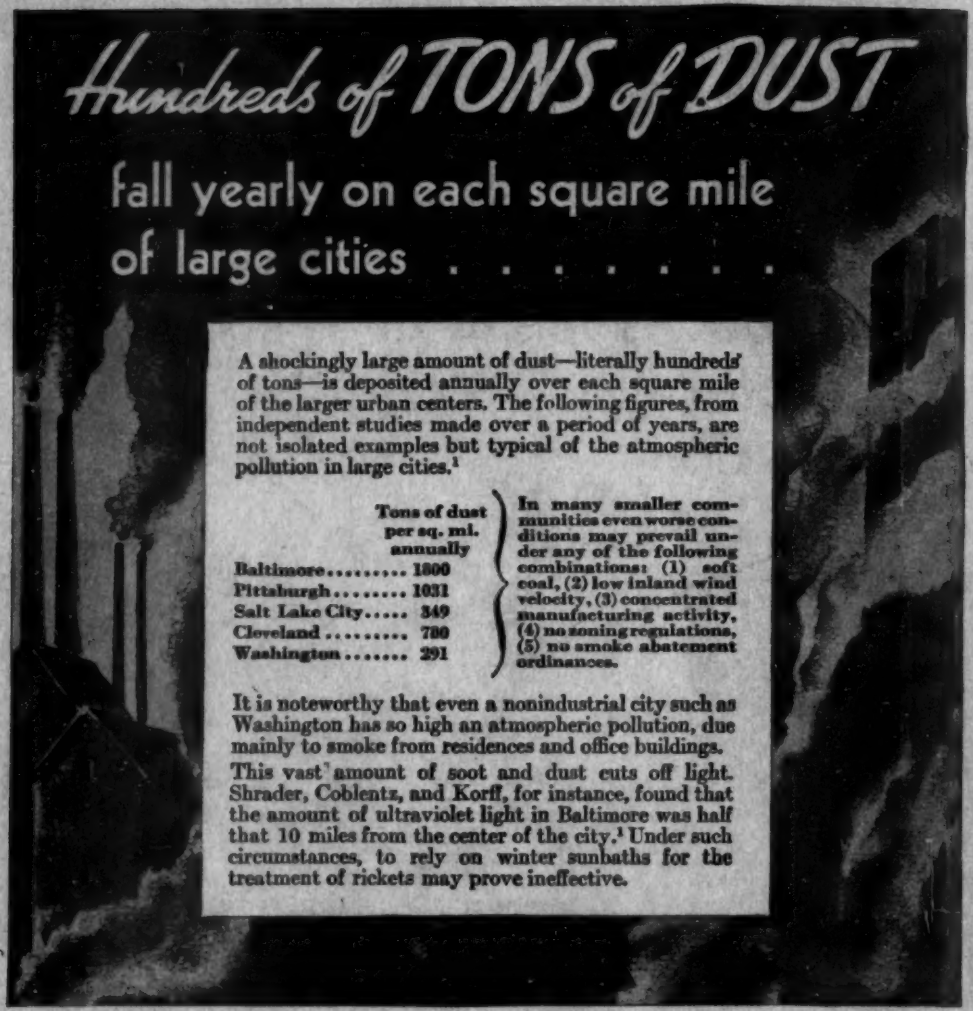
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A shockingly large amount of dust—literally hundreds of tons—is deposited annually over each square mile of the larger urban centers. The following figures, from independent studies made over a period of years, are not isolated examples but typical of the atmospheric pollution in large cities.[1]
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Pittsburgh..... 1031
Salt Lake City..... 349
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In many smaller communities even worse conditions may prevail under any of the following combinations: (1) soft coal, (2) low inland wind velocity, (3) concentrated manufacturing activity, (4) no zoning regulations, (5) no smoke abatement ordinances.
It is noteworthy that even a nonindustrial city such as Washington has so high an atmospheric pollution, due mainly to smoke from residences and office buildings.
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[1] U. S. Public Health Bulletin No. 224.

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All cases with roentgenologically demonstrable calcification in the parenchyma or hilum of the lung of the type generally recognized as characteristic of a healed primary complex, were classified as healed primary tuberculosis. If those individuals under 10 and over 80, whose numbers are so small as to be statistically of no significance, are disregarded, it is apparent that the frequency of this finding increases with the age of the individuals. It is more common in females throughout life and particularly between the ages of 10 and 20, and 50 and 60. The rate of 11.1 per cent found for the entire population is comparable to that reported in similar groups examined with a single postero-anterior chest film (table 2).

TABLE 2

Abnormal cardiac outlines, other pulmonary lesions and healed primary tuberculosis found in 88,283 X-ray examinations

RACE AND SEX	NUMBER X-RAYED	NUMBER			PER CENT		
		Abnormal Cardiac	Other pulmonary lesions	Healed primary	Abnormal Cardiac	Other pulmonary lesions	Healed primary
White—male	35,950	1,314	674	3,659	3.7	1.9	10.2
White—female	23,248	214	141	1,647	0.9	0.6	7.1
Negro—male	13,376	771	132	1,753	5.8	1.0	13.1
Negro—female	14,824	672	99	2,405	4.5	0.7	16.2
Unknown—male	414	19	2	153	4.6	0.5	37.0
Unknown—female	471	11	1	225	2.3	0.2	47.8
Total	88,283	3,001	1,049	9,842	3.4	1.2	11.1

All cases whose heart or aortic silhouettes were of abnormal configuration for their age group were included under abnormal cardiac outlines. Minor degrees of dilatation or tortuosity of the great vessels so common in older individuals were not considered of significance. In younger persons, variations in the shape of the cardiac shadow were common and these were included only when they were so marked as to make the diagnosis of organic cardiac disease probable. Abnormal cardiac outlines are present in 3.4 per cent of all individuals X-rayed. The prevalence in males is considerably higher than in females and increases with age in both sexes. A more complete analysis of the significance of this finding in a selected group is contained in the section on Cardiovascular Abnormalities. (See page 148.)

The third group, that with nontuberculous pulmonary lesions, is the

least well defined. In it were included all individuals whose X-ray films revealed changes in the parenchyma of the lung presumably not of tuberculous aetiology. Localized or generalized pulmonary fibrosis, marked emphysema, pneumonitis, bronchiectasis, neoplasm and foreign body were among the conditions so classified. Pleural changes, congenital anomalies and normal variants were omitted. The prevalence of 1.2 per cent for the entire group with a rate in males of 1.6 per cent and in females of 0.6 per cent seems consistent with the composition of the population. The progressive increase in frequency with age in both male and female is to be expected for this type of abnormality.

A carefuly study of these observations tends to substantiate the conclusions that we have drawn concerning the most desirable methods of conducting surveys in different age and population groups. The comparative infrequency of findings other than tuberculosis in younger individuals would make tuberculin test screening the procedure of choice. The presence of a significant number of individuals with cardiac lesions among older people, however, is an important reason for routine X-ray examination of adults. These considerations have influenced us in the formulation of our present survey program.

REFERENCE

(1) Robins, A. B., and Ehrlich, David E.: Group X-ray Surveys in Apparently Healthy Individuals. To be published in *Radiology*.